

## ***Interactive comment on “Inter-annual surface evolution of an Antarctic blue-ice moraine using multi-temporal DEMs” by M. J. Westoby et al.***

**Anonymous Referee #1**

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This is really an interesting paper. The authors analyzed the inter-annual surface evolution of an Antarctic blue-ice moraine using multi-temporal DEMs. These were obtained from different source of data and remote sensing techniques: terrestrial lidar and structure from motion. The authors considered the three-dimensional “cloud-to-cloud” distance calculations to quantify the moraine surface evolution.

I haven't major issues to provide, the paper is really well written. I have just minor points. The paper, because of the lack of a detailed discussion on processes, it looks like a technical note paper (in the hands of the Editor and Guest Editor the decision on the format of the paper).

The authors highlighted the fact that “A comprehensive analysis of the evolution of the Patriot Hills blue-ice moraine and its relationships to ablation and underlying ice struc-

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ture” is not the main purpose of the present work. They just provided few sentences on Earth surface changes interpretation. Why not restructure a little this final section of the discussion highlighting the real addressed value (and application in other contexts) of such inter-annual analysis for understanding the Earth surface processes in a glaciated landscape? How can be used such analysis? For which specific process? Under which environmental forcing?

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Interactive comment on Earth Surf. Dynam. Discuss., 3, 1317, 2015.